AMENDMENTS TO THE CLAIMS

Please amend the claims as follows

1. (Currently Amended) A solid-state image pickup apparatus comprising:

a solid-state image sensor comprising a plurality of photosensitive cells arranged in a two-dimensional array for converting incident light to electric signals, each of said plurality of photosensitive cells including a main region and a subregion smaller in area than said main region;

a shutter for adjusting an end of an exposure time over which light incident to said solid-state image sensor is subject to photoelectric transduction;

a sensitivity control circuit for comparing actual sensitivity of each of said subregions for a predetermined quantity of light with predetermined sensitivity of the subregion for the predetermined quantity of incident light to determine a sensitivity error and compensating for the sensitivity error~~; and~~,

wherein the sensitivity control circuit controls said exposure time over said subregions to adjust the predetermined sensitivity of the subregion in terms of a correction ratio between the quantities of light incident to the main and subregions; and

a system controller for controlling, in response to an image pickup operation meant for said solid-state image sensor, said sensitivity control circuit in accordance with a direction of the sensitivity error.

2. (Original) The apparatus in accordance with claim 1, wherein each of said plurality of photosensitive cells has a photosensitive area divided into the main region and the subregion different in area from each other.

3. (Original) The apparatus in accordance with claim 1, wherein said sensitivity control circuit comprises:

a sensitivity error detector for comparing the actual sensitivity with the predetermined sensitivity for determining the direction and an amount of the sensitivity error; and

an error adjuster for adjusting the direction and the amount of the sensitivity error.

4. (Original) The apparatus in accordance with claim 2, wherein said sensitivity control circuit comprises:

a sensitivity error detector for comparing the actual sensitivity with the predetermined sensitivity for determining the direction and an amount of the sensitivity error; and

an error adjuster for adjusting the direction and the amount of the sensitivity error.

5. (Original) The apparatus in accordance with claim 1, wherein said system controller detects the sensitivity error in the direction in which the actual sensitivity becomes greater than the predetermined sensitivity and the sensitivity error in the direction which the actual sensitivity becomes smaller than the predetermined sensitivity as a positive error and a negative error, respectively,

said system controller using, on detecting the positive error, an exposure time of said main region as a reference to delay a start of the exposure time of said subregion in dependence upon the amount of the positive error, and using, on detecting the negative error, an exposure time of said subregion as a reference to delay the exposure time of said main region in dependence upon an amount of the negative error.

6. (Original) The apparatus in accordance with claim 2, wherein said system controller detects the sensitivity error in the direction in which the actual sensitivity becomes greater than the predetermined sensitivity and the sensitivity error in the direction which the actual sensitivity becomes smaller than the predetermined sensitivity as a positive error and a negative error, respectively,

said system controller using, on detecting the positive error, an exposure time of said main region as a reference to delay a start of the exposure time of said subregion in dependence upon the amount of the positive error, and using, on detecting the negative error, an exposure time of said subregion as a reference to delay the exposure time of said main region in dependence upon an amount of the negative error.

7. (Original) The apparatus in accordance with claim 3, wherein said system controller detects the sensitivity error in the direction in which the actual sensitivity becomes

greater than the predetermined sensitivity and the sensitivity error in the direction which the actual sensitivity becomes smaller than the predetermined sensitivity as a positive error and a negative error, respectively,

said system controller using, on detecting the positive error, an exposure time of said main region as a reference to delay a start of the exposure time of said subregion in dependence upon the amount of the positive error, and using, on detecting the negative error, an exposure time of said subregion as a reference to delay the exposure time of said main region in dependence upon an amount of the negative error.

8. (Original) The apparatus in accordance with claim 4, wherein said system controller detects the sensitivity error in the direction in which the actual sensitivity becomes greater than the predetermined sensitivity and the sensitivity error in the direction which the actual sensitivity becomes smaller than the predetermined sensitivity as a positive error and a negative error, respectively,

said system controller using, on detecting the positive error, an exposure time of said main region as a reference to delay a start of the exposure time of said subregion in dependence upon the amount of the positive error, and using, on detecting the negative error, an exposure time of said subregion as a reference to delay the exposure time of said main region in dependence upon an amount of the negative error.

9. (Original) The apparatus in accordance with claim 5, wherein said sensitivity error adjuster comprises:

a timing signal generator for generating, under control of said system controller, a timing signal for causing the exposure time in dependence upon the amount of the sensitivity error to start; and

a driver for feeding a drive signal to said solid-state image sensor in response to the timing signal.

10. (Original) The apparatus in accordance with claim 6, wherein said sensitivity error adjuster comprises:

a timing signal generator for generating, under control of said system controller, a timing signal for causing the exposure time in dependence upon the amount of the sensitivity error to start; and

a driver for feeding a drive signal to said solid-state image sensor in response to the timing signal.

11. (Original) The apparatus in accordance with claim 7, wherein said sensitivity error adjuster comprises:

a timing signal generator for generating, under control of said system controller, a timing signal for causing the exposure time in dependence upon the amount of the sensitivity error to start; and

a driver for feeding a drive signal to said solid-state image sensor in response to the timing signal.

12. (Original) The apparatus in accordance with claim 8, wherein said sensitivity error adjuster comprises:

a timing signal generator for generating, under control of said system controller, a timing signal for causing the exposure time in dependence upon the amount of the sensitivity error to start; and

a driver for feeding a drive signal to said solid-state image sensor in response to the timing signal.

13. (Original) The apparatus in accordance with claim 4, wherein said system controller amplifies a signal output from said subregion when the negative error is detected.

14. (Original) The apparatus in accordance with claim 13, wherein said sensitivity error adjuster amplifies, under control of said system controller, a signal output from said subregion by the amount of the negative error.

15. (Currently Amended) A method of adjusting outputs of photosensitive cells in accordance with sensitivity, comprising:

a first step of arranging a plurality of photosensitive cells in a two-dimensional array for

converting incident light to electric signals, each of the plurality of photosensitive cells including a main region and a subregion smaller in area than the main region;

a second step of comparing actual sensitivity of each of the subregions for a predetermined quantity of light with predetermined sensitivity of the subregion for the predetermined quantity of incident light to determine a direction and an amount of a sensitivity error;

a third step of designating, in dependence upon the direction of the sensitivity error, either one of the main region and the subregion as a reference region while handling the other region as a subject region to be adjusted, and executing control for canceling the amount of the sensitivity error of the subject region~~; and~~,

wherein the third step controlling said exposure time over said subregions to adjust the predetermined sensitivity of the subregion in terms of a correction ratio between the quantities of light incident to the main and subregions; and

a fourth step of executing processing for canceling the amount of the sensitivity error derived from the subject region in accordance with the control.

16. (Original) The method in accordance with claim 15, wherein said third step comprises:

a substep of detecting the sensitivity error in the direction in which the actual sensitivity becomes greater than the predetermined sensitivity and the sensitivity error in the direction which the actual sensitivity becomes smaller than the predetermined sensitivity as a positive error and a negative error, respectively; and

a substep of using, on detecting the positive error, an exposure time of the main region as a reference to delay a start of the exposure time of the subregion in dependence upon the amount of the positive error or using, on detecting the negative error, the exposure time of the subregion as a reference to delay the exposure time of the main region in dependence upon an amount of the negative error.

17. (Original) The method in accordance with claim 15, wherein said third step comprises a substep of amplifying a signal output from the subregion when the negative error is detected.

18. (Original) The method in accordance with claim 16, wherein said third step comprises a substep of amplifying a signal output from the subregion when the negative error is detected.